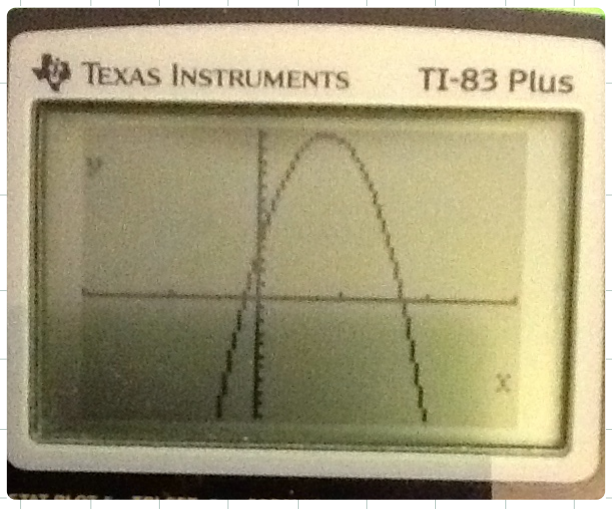
Graphic Calculator: Finding the maximum or minimum point

Example: Suppose a diver bounces off a 3-meter high springboard moving upward at a speed of 4 meters per second. Find when the diver will be 12 feet in the air.

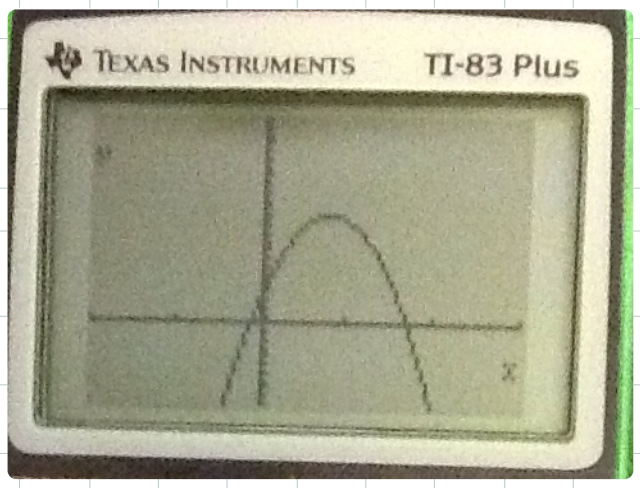
Step 1: write an equation that represents this **situation**.

$h = 3 + 4t - 4.9t^2$ (must use meters formula)

Step 2: Make sure to see the graph of the parabola on the calculator. Should be able to see well above the maximum (or minimum) point.



This picture is good.

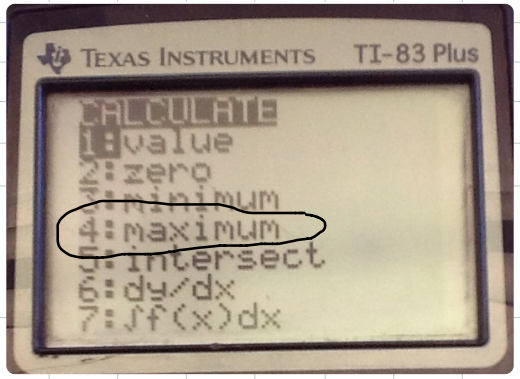


This picture is BETTER since you see more of the maximum point.

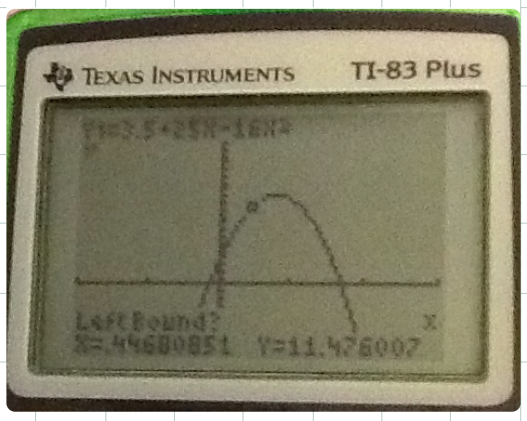
Step 3: Calculator steps to find the maximum

Press 2nd trace A menu will appear:

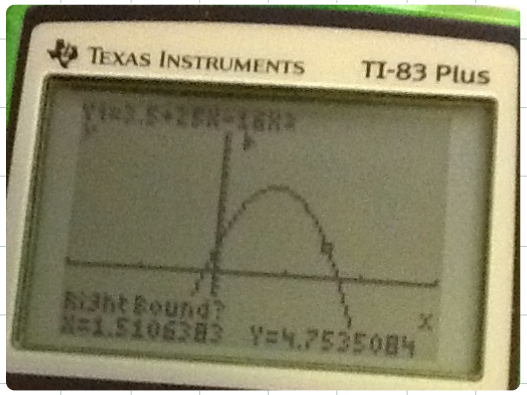
Choose 4: maximum



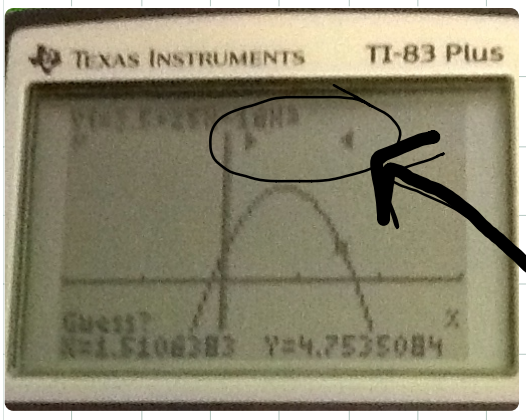
A series of questions will follow.



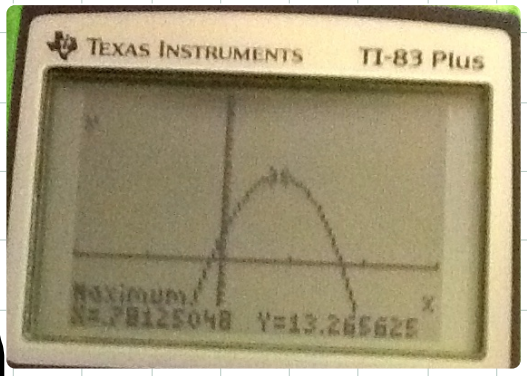
Left bound? Make sure to move the cursor to the left of the highest point. Press enter.



Right bound? Make sure to move the cursor to the right of the Highest point. Press enter.



Guess? Make sure the maximum is between the two arrows before press enter to get the maximum pt.



Maximum point make sure you see the word maximum (or min) before writing the final answer.

x-values = time & y-values= height